UNITED STATES **ENVIRONMENTAL PROTECTION AGENCY** REGION 9

CONSENT ORDER 10 In the Matter of GOODYEAR AEROSPACE CORPORATION. 11 (LITCHFIELD PARK, ARIZONA), Docket No. 86-03 12 Respondent. 13 Proceeding Under Section 14, 106(a) of the Comprehensive Environmental Response. Compensation and Liability Act 15 of 1980 (42 U.S. C. \$9606(a)) 16

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JURISDICTION

The following Order is issued on this date to Goodyear 19|| Aerospace Corporation, Arizona Division, Litchfield Park, Arizona 20 (hereinafter referred to as Respondent), pursuant to the authority 211 vested in the President of the United States by \$106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. \$9601 et seq., delegated to the Administrator of the United States Environmental Protection Agency (EPA) by Executive Order Number 12316 (August 20, 1981, 46 FR 42237), and redelegated to the Director, Toxics and Waste Management Division, EPA, Region 9. Notice of the issuance of this Order has been given to the State of Arizona.

FINDINGS OF FACT

Respondent is current owner and operator of a facility
 located at 101 S. Litchfield Road, Litchfield Park, Arizona
 (hereinafter "facility").

- Respondent has engaged in the use, generation, treatment, storage and disposal of hazardous substances and hazardous wastes as defined by CERCLA and RCRA.
- 3. Respondent has used significant quantities of halogenated and non-halogenated solvents including, but not limited to, trichloroethylene (hereinafter referred to as TCE) since it began operations in 1942.
 - 4. On August 27, 1982, Respondent submitted information to EPA in response to EPA's request for information pursuant to Section 3007(a) of RCRA, 42 U.S.C. \$6927, and Section 104(e) of CERCLA, 42 U.S.C. \$9604(e). Respondent stated the following:
 - A. In 1971, an unknown quantity of solvents was disposed of in one of the sludge drying heds. Respondent said that disposal of TCE in the drying heds was unlikely.
 - B. Between the early 1970's and 1980. Respondent disposed of chromium-hearing sludge from the chromium treatment plant in drying heds located on the facility.
 - C. TCE was used extensively as a degreaser before 1974.

 After TCE use was discontinued in 1974, 1,1,1-trichoroethane (TCA) was substituted for TCE.
 - D. Twenty-three 55-gallon drums of waste TCE were stored at Respondent's facility from 1973 to August 5, 1980, at which time the drums were removed from the facility by

Southwest Solvents.

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Waste storage at the Respondent's facility consists of tanks containing chromium sludge from their chromium treatment facility and small quantities of nickel, lead, tin and copper. Other hazardous wastes atored at the

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5.. Respondent was unable to submit documents concerning its waste disposal practices for the first 25 years of its operation although such information was requested pursuant to Section 3007 of RCRA in the letter sent to Respondent on

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July 23, 1982.

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27 28 facility include chlorinated solvents.

Respondent's wells #1, #2, #3, and #4 are located on Respondent's facility. Between February 1979 and January 24, 1984, EPA, the Arizona Department of Health Services, and Respondent sampled Respondent's wells #2, #3, and #4. results of those sampling efforts are listed below:

Goodyear Aerospace Corporation Well #2

Date	Organization		Concentration
Sampled	Sampling	Contaminant	(in ppb)
12/9/81	ADHS	TCE	2.1
3/24/82	GAC	TCF	3.6
9/2/82	EPA	TCE	7.3
		***********	•
10/27/82	GAC	TCE	3.9
5/9/83	GAC	TCE	9.8
6/15/83	GAC	TCE	2.7
12/9/81	GAC	Chromium	210.
1/5/82	GAC	Chromium	130.
3/31/82	GAC	Chromium	45.
9/2/82	EPA	Chromium	30.
10/14/82	GAC	Chromium	36.
6/28/83	ADHS	Chromium	51.

Goodyear Aerospace Corporation Well 43

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Date Sampled	Organization Sampling	Contaminant	Concentration (in ppb)	
3/23/82	ADHS	TCE	33.1	
3/24/82	ADHS	TCE	49.9	
7/15/82	GAC	TCE	14.7	
7/30/82	GAC	TCE	4.63	
8/6/82	GAC	TCE	4.30	
. 9/2/83	EPA	TCE	9.5	
10/27/82	GAC	TCE	9.3	
6/15/83	GAC	TCE	14.0	
6/15/83	GAC	TCE	7.3	
9/2/82	EPA	Chromium	50.	
10/14/82	GAC	Chromium	64.	
6/28/83	ADHS	Chromium	81.	

Goodyear Aerospace Corporation Well #4

Date Sampled	Organization Sampling	Contaminant	Concentration (in ppb)
12/9/81	ADHS	TCE	2.6
6/15/82	ADHS	TCE	6.6
6/15/83	GAC	TCE	12.0
6/15/83	GAC	TCE	6.6
7/15/83	GAC	TCF	5.8
1/16/84	GAC	TCE	5.9
1/19/84	GAC	TCE	6.19
1/24/84	GAC	TCE	6.46
2/79	GAC	Chromium	15.
3/82	GAC	Chromium	18.
9/2/83	GAC	Chromium	10.
10/14/82	GAC	Chromium	12.
6/28/83	ADHS	Chromium	16.

7. Between November, 1981 and April, 1982, the Arizona Department of Health Services sampled the Phoenix-Litchfield Airport well #3, located immediately adjacent to Respondent's facility. The sampling dates and the concentrations of contaminants found in the samples are listed below:

Phoenix-Litchfield Airport Well #3

2	Date Sampled	Contaminant	Concentration (in ppb)
3		7 00	47.3
- 11	11/24/81	TCE	
4	12/81	TCE	116.
- []	03/17/82	TCE	576.9
5	03/17/82	1,1-dichloroethylane	4.76
-	03/17/82	trans 1.2-dichloroethylene	21.3
n!	03/17/82	chloroform	4.4
~	03/17/82	1,1 dichloroethane	21.4
7	. 03/17/82	carbon tetrachloride	4.22
'	03/17/82	tetrachloroethylene	5.
8	04/20/82	TCE	461.1
- 11	04/20/82	1,1 dichloroethylene	0.49
9	04/20/82	1,1 dichloroethane	0.48
~	04/20/82	trans 1,2-dichloroethylene	5.47
10	04/20/82	chloroform	5.0

- facility pursuant to an Administrative Search Warrant from the U.S. District Court. An internal GAC memo dated January 22, 1973 from T. W. Heim to G. R. Phillips regarding solvent disposal was reviewed by FPA and is incorporated by reference.
- 9. During 1983 and 1984, the Arizona Department of Health
 Services and Respondent sampled water from Respondent's
 storm drains and NPDES outfalls. The sample results are
 listed below:

Goodyear Aerospace NPDES Outfall 001

22	Date Sampled	Organization Sampling	Contaminant	Concentration (in ppb)
23	6/83	GAC	TCE	169.
24	6/83 5/18/83	GAC ADHS	TCE TCE	47. 3.0
25	6/15/83 12/22/83	ADHS GAC	TCE TCE	5.1 51.
26	12/22/83	GAC GAC	TCE TCE	45. 880.
27	1/12/84*	GAC GAC	TCF TCE	43.0 15.6
28	1/19/84*	GAC	TCE	36.1

1/19/84*	GAC	TCE	5.22
1/19/84*	GAC	TCE	226.
1/19/84*	GAC	TCE	5.61a
1/24/84*	GAC	TCE	520.
2/09/84*	GAC	TCE	34.8
2/09/84*	GAC	TCE	127.
2/09/84*	GAC	TCE	63.9

* Sample taken immediately upstream of the designated NPDES sampling point.

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Goodyear Aerospace NPDES Outfall 002

Date Sampled	Organization Sampling	Contaminant	Concentration (in ppb)	
5/18/83	ADHS	TCE	3.1	
6/15/83	ADHS	TCE	0.9	

- 10. During their February 16 and 17, 1984 inspection. EPA inspectors located two surface impoundments in the southeast quadrant of Respondent's facility. The irregularly shaped impoundments are approximately six feet in diameter. The depth is unknown. Respondent's representatives stated that the impoundments are used for disposing of polishing compound waste from its plastics shop. At the present time, there are only solid materials in these pits.
- 11. During their February 16 and 17, 1984 inspection, EPA officials spoke with Mr. Randall Clark, Respondent's Environmental Coordinator. Mr. Clark stated he believes that the TCE found in Respondent's NPDES discharge was due to TCE-laden sediment in the drain pipes which convey liquid to the NPDES Outfalls.
- 12. Chromium and volatile organic compounds were detected in soil borings located at the facility. These samples were taken by the Respondent and reported to EPA in the Evaluation of

Soils and Shallow Groundwater Contamination Report dated May 1985. Soil boring 168-1 contained TCE throughout the entire soil column:

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Boring	Depth of Sample(ft)	TCE (ppb)
16B-1-1	0-1.5	113
16B-1-2	5	86
16B-1-3	10	115
Boring Depth of Sample(ft)		TCE (ppb)
16B-1-4	15	87
16R-1-5	20	76
16B-1-6	25	68
16B-1-7	30	150
16B-1-8	50	91

Chromuim was also found in soil boring 16B-2 up to a concentration of 3400 ppm and in soil boring 16B-3 up to a concentration of 750 ppm. By comparison, the background level of chromium is approximately 30 ppm.

13. Chromium and volatile organic compounds were found in ground water samples underlying the facility. These results were stated in the Evaluation of Soil and Shallow Groundwater

Contamination report. Partial shallow ground water results are as follows:

Boring	TCE(ppb)	1,1- DCE(ppb)	Benzene(ppb)	Chromium(ppb)
16GB-1	NA	NA	NA	1600
16GB-2	51	ND	ND	710
16GB-4	687	26	ND	690
16GR-5	221	791	174	580
16GB-6	78	31		250

NA-not analyzed due to loss of samples during shipping ND-below detection limit

14. Halogenated and non-halogenated spent solvents, including

TCE, and chromium-bearing sludge are hazardous wastes as defined by \$1004(5) of RCRA, 42 U.S.C. \$6903(5) and are listed as hazardous wastes at 40 CFR \$261.31. Chromiumbearing sludge. TCE, and spent halogenated and non-halogenated solvents are also hazardous substanced as defined by \$101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. \$9601(14).

- 15. The ground water wells at the airport and the well at the GAC property are found to be contaminated. These wells are completed in the aquifer system which is a source of drinking water in the Goodyear-Avondale area.
- The Respondent has already performed tasks in accordance with 16. a previous EPA Administrative Order, Docket 84-02.

DETERMINATION

Pased upon the foregoing Findings of Fact, the Director, 18 Toxics and Waste Management Division. EPA, Region 9 has determined 10% that, due to past releases of hazardous substances and hazardous 20 wastes from Respondent's facility, there may be an imminent and 21 substantial endangerment to the public health or welfare or the 22 environment, and that such releases may present a substantial 23 hazard to human health or the environment.

EPA has further determined that Respondent is a current 25 owner/operator responsible for conducting the actions ordered 26 herein, which are necessary to ascertain the nature and extent 27] of the hazard and to protect public health and the environment.

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Based upon the foregoing Determinations and Findings of Fact, Respondent is hereby ordered and directed, pursuant to \$106(a) of CERCLA, 42 U.S.C. \$9601 et seq., prepare and submit to EPA for approval, within 30 days of the effective date of this Order, a written proposal, including a schedule of work (Proposal).

- A. The Proposal shall include the following tasks:
 - 1. All work necessary to develop specifications and contract documents for drilling, sampling, water quality testing, and assistance in drilling site aquisition. All specifications shall be submitted to EPA for approval before field work is conducted. Specifications for spinner-logging of wells will be provided to GAC by EPA;
 - 2. Install shallow ground water monitoring wells (approximately 160 feet deep) to determine the extent of contamination in the shallow zone of the Upper Alluvial Unit (UAU). An approximate location for these wells is indicated in Figure 1.
 - 3. Installation of an aquifer test well. The location and construction details of this twelve-inch well will be discussed with EPA;
 - 4. The following wells shall be TV-logged, spinner-logged, and sampled at depth discrete intervals: all facility production wells, TOG #1 (b-1-1 10ccd), TOG #5 (b-1-1 9ddb), and all airport production wells;
 - 5. Water quality sampling will be performed according to the protocols set forth in the OAPP and previous sampling plans. All wells at the facility shall be sampled for

priority pollutant compounds, anions and cations, chemical oxygen demand, and pesticides within 30 days of receipt of this Order and three more times on a quarterly basis thereafter. The analysis of the first round of samples will include the above mentioned compounds; the three subsequent samples will be analyzed for compounds that will be determined by FPA after the first round of sampling. EPA will contact GAC to coordinate these sampling efforts. In addition, GAC will sample all newly GAC installed shallow zone monitoring wells upon completion of the wells. These new monitoring wells will subsequently be included in the quarterly sampling schedule.

- 6. An evaluation of options for handling treated or extracted ground water must be conducted. Any hazardous wastes are to be disposed of per state and federal requirements;
- 7. Perform all tasks described in the Goodyear Aerospace Proposal dated December 3, 1985, as amended by a letter from by Jeff Rosenbloom of EPA, dated December 19, 1985.
- 8. Presentation of a schedule for the tasks to be conducted during this investigation;
- 9. Following the completion of the field investigation and after receiving the chemical data, the data will be summarized in a report that is to be submitted to EPA within six months from receipt of EPA approval of the Proposal.
 - by Respondent to Jeff Rosenbloom, Environmental Protection Agency, at the address listed below, within thirty days of the date of this Order. The Proposal

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shall be subject to review, modification and approval by EPA.

3 EPA will perform the following tasks in conjunction with Goodyear Aerospace Corporation's activities:

- 1. Install shallow ground water monitoring wells at locations · indicated in Figure 1. These wells will be installed after the data from the shallow monitoring wells installed by GAC is evaluated:
- 2. Install a protection well between the facility and the Town of Goodyear Well #1;
- 3. Install wells in Subunits B and C of the Upper Alluvial Unit after data from the shallow wells are evaluated. The approximate locations of these wells are shown in Figure 1;
- 4. Install wells in the Middle Fine Grain Unit after data from from the wells installed in Subunits B and C are evaluated. The approximate locations of these wells are shown in Figure 1;
- 5. Continue groundwater modeling work in conjunction with the Arizona Department of Water Resources;
- 6. Sample designated wells in the study area in order to update the water quality data base;
- 7. Continue to perform monthly water level monitoring;
- 8. Conduct overview of work performed by GAC. This task will include field oversight and review of work products;
- 9. Screen alternatives for the handling of treated or extracted ground water.

27 EPA reserves the right to issue any supplemental orders that are deemed necessary to determine the vertical and horizontal extent

of contamination.

All tasks stated in this Order shall be subject to the following guidelines:

- 1. It is the responsibility of Respondent to obtain access to and use of any off-site areas. Respondent shall be responsible for any claims arising from the activities conducted by Respondent or its representatives or consultants on third-party property in connection with this of Order in accordance with CERCLA and the State of Arizona. Respondent will provide access to the site for EPA employees, contractors, or consultants at all reasonable times and will permit such persons to be present and move freely in the area where any work is being conducted pursuant to this Order.
- 2. Respondent shall provide EPA with copies of all charts, maps, letters, memoranda, invoices, shipping manifests of other records or documents relevant to the performance of work under this Order as requested or which are required by to be provided to EPA by RCRA, CERCLA, or any other applicable law.
- 3. Respondent shall submit to EPA monthly reports describing activities performed during that month pursuant to this Order, including, but not limited to, a description of any well drilling, soil boring, sample collection, sample analysis, water level measurement, and engineering or geologic analysis. These monthly reports are due at the end of the next month after the conclusion of a previous month's activities.

- 4. Notwithstanding compliance with the terms of this Consent Order, including the completion of an EPA approved Remedial Investigation and Feasibility Study, the Respondent is not released from liability, if any, for any actions beyond the terms of this Consent Order taken by EPA respecting the famility. EPA reserves the right to take any enforcement action pursuant to CERCLA and/or any available legal authority, including the right to damages for any violation of law or this Consent Order.
- order but neither the Respondent's consent, nor anything in this Consent Order, shall constitute an admission by the Respondent of legal or factual matters set forth herein, which matters the Respondent specifically denies. By signing this Order, the Respondent does not admit, accept, or intend to acknowledge any liability or fault with respect to the conditions at or arising from the Phoenix/Litchfield Airport area (site) or with respect to any matter arising out of or relating to the conditions at or arising from the site, and Respondent specifically maintains that other parties are responsible for these conditions.
- 6. The Respondent and EPA expressly reserve all rights and defenses that they may have, including EPA's right both to disapprove of work performed by the Respondent and to Respondent's request that the Respondent perform/tasks as provided in this Consent Order. In the event that the Respondent declines to perform such tasks, EPA reserves the right

to undertake any remedial investigation and feasibility study work. EPA reserves the right to undertake removal actions and remedial actions at any time. EPA reserves the right to seek reimbursement from the Res; Indent thereafter for such costs incurred by the United States.

- 7. Respondent reserves the right to credit or offset against its responsibility for costs of remedial investigations, feasibility study, removal, or remedial actions the costs of performing the work ordered by this consent order and the administrative costs for Phase I.
- 8. Respondent and EPA recognize that the Department of Defense is a potential responsible party in the Phoenix Litchfield Airport Area and may be required under the Memorandum of Understanding dated August 12, 1983 and styled, "Memorandum of Understanding Between the Department of Defense and the Environmental Protection Agency for the Implementation of P.L. 96-510 the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)" to contribute its proportional share of the costs of the Remedial Investigation, the Feasibility Study, and the Removal or Remedial Action.
- 9. All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations unless an exemption from such requirements is specifically provided in this Consent Order.
- 10. EPA recognizes that the Department of Defense (DOD) has, as a former owner/operator of the site, a responsibility

for a portion of the costs of the remedial investigation, the feasibility study, and remedial actions at the site. Saving and excepting this responsibility of the DOD, the Respondent agrees to indemnify and save and hold the United States Government, its agencies, de_artments, agents, employees, and contractors, harmless from any and all claims or causes of action arising from or on account of acts or omissions of the Respondent, its officers, printing, employees, receivers, trustees, agents, or assigns, in carrying out its activities pursuant to this Consent Order. EPA is not a party in any contract

11. This Consent Order shall apply to and be binding upon the Respondent and EPA. their agents, successors, and assigns and upon all persons, contractors, and consultants acting under or for either the Respondent or EPA or both. No change in ownership or corporate or partnership status relating to the facility will in any way alter the status of the Respondent or in any way alter the Respondent's responsibility under this Consent Order. The Respondent will remain the Respondent under this Consent Order and will be responsible for carrying out all activities required of the Respondent under this Consent Order.

specifically involving the Respondent at the site.

12. EPA has notified the State of Arizona pursuant to the requirements of Section 106 (a) of CERCLA.

EFFECTIVE DATE -- OPPORTUNITY TO CONFER

Except as otherwise provided below, this Order is effective upon the date of approval by EPA. All times for performance of

Illresponse activities shall be calculated from that date.

Under the provisions of CERCLA: Respondent may request a conference to be held within seven (7) calendar days after receipt of this Order to discuss this Order, its applicability, the correctness of any factual determinations upon which the Order is based, the appropriateness of any action which Respondent is ordered hereby to take, and any other relevant and material issue. If Respondent requests a conference, this Order will not become effective until the expiration of the said seven-day period.

At any conference held pursuant to Respondent's request, 12 Respondent may appear in person and by attorney or other represen-13 tatives for the purpose of presenting any objections, defenses or contentions which Respondent may have regarding this Order.

STIPULATED PENALTIES FOR NON-COMPLIANCE

You are advised that willful violation or failure or refusal 18 to comply with this Order, or any portion hereof, may subject you 19 to a civil penalty of not more than \$5,000.00 for each day in 20] which violation occurs or such failure to comply continues in 21 accordance with \$106(b) of CERCLA. Failure to comply with this 22 Order, or any portion hereof, without sufficient cause, may also 23 subject you to liability for punitive damages in the amount of 24 three times the total of all costs incurred by the government as 25 a result of your failure to take proper action in accordance with 26 | \$107(c)(3) of CERCLA.

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It is so ordered on this 19thday of March, 1986. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY HARRY SERAYDARIAN POXICS AND WASTE MANAGEMENT DIVISION 5 CORPORATION GOODYEAR AEROSPACE 8 Contact person: Jeff Rosenbloom (T-4-2) Environmental Protection Agency 215 Fremont Street San Francisco, California 94105 Telephone: (415) 974-7513 13 14 15 16 17 18 19 20 21 22 23 24

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